



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-1010; Project Identifier MCAI-2020-00807-G]

RIN 2120-AA64

Airworthiness Directives; Stemme AG Gliders

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for certain Stemme AG TSA-M Model S6 and S6-RT gliders. This proposed AD was prompted by mandatory continuing airworthiness information (MCAI) issued by the aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as a new version of the propeller gearbox tooth belt with a reduced life limit. This proposed AD would require establishing a life limit of 5 years for certain propeller gearbox tooth belts. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact STEMME AG, Flugplatzstrasse F2, Nr. 6-7, D-15344 Strausberg, Germany; phone: +49 (0) 3341 3612-0; fax: +49 (0) 3341 3612-30; email: airworthiness@stemme.de; website: <https://www.stemme.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-1010; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the MCAI, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Jim Rutherford, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 901 Locust, Room 301, Kansas City, MO 64106; phone: (816) 329-4165; fax: (816) 329-4090; email: jim.rutherford@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2021-1010; Project Identifier MCAI-2020-00807-G” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any

personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Jim Rutherford, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 901 Locust, Room 301, Kansas City, MO 64106. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The European Union Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2020-0140, dated June 23, 2020 (referred to after this as “the MCAI”), to address an unsafe condition on Stemme AG (Stemme) TSA-M Model S6 and S6-RT powered sailplanes (gliders) and ASP S15-1 airplanes. The MCAI states:

The airworthiness limitations for Stemme TSA-M powered sailplanes and Stemme ASP aeroplanes, which are approved by EASA, are currently defined and published in Chapter 4 of the applicable AMM [aircraft maintenance manual]. These instructions have been identified as mandatory for continued airworthiness.

Failure to accomplish these instructions could result in an unsafe condition.

During a regular incoming part inspection at Stemme, the supplier delivered a new version of the tooth belts used in the propeller gearbox. The new part (with marking “Carbon”) deviates from the previously used

part (with marking “Extreme”) by its layer build up. The new tooth belt has been found airworthy, although with a reduced life limit.

Before Stemme identified the issue, new tooth belts were delivered, identified as Part Number (P/N) 830.185, the same as the previous part. These parts have to be identified by inspection, changed to P/N 832.502, and the reduced life limit implemented.

Consequently, Stemme issued the applicable ALS [airworthiness limitations section] introducing the new life limit for the new part. Stemme also issued the SB [service bulletin] providing additional instructions on relevant inspections and corrective actions.

For the reasons described above, this [EASA] AD requires a one-time inspection of the propeller gearbox tooth belts, and, depending on findings, re-identification. This [EASA] AD also requires implementation of the reduced life limit by accomplishment of the actions specified in the applicable ALS.

After issuance of the MCAI, EASA approved extending the life limit of the new “Synchroforce Carbon” belt to 5 years, the same as the original “Extreme” belt, as documented by Stemme in Revision 15 to the AMM Chapter 04 ALS.

You may examine the MCAI in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-1010.

Related Service Information

The FAA reviewed Stemme Service Bulletin (SB) Doc. No. P062-980049, Revision 00, dated May 27, 2020. This SB specifies identifying the front propeller gearbox tooth belt, revising the AMM and illustrated parts catalogue, and introducing a life limit for the propeller gearbox tooth belt marked “Synchroforce Carbon.”

FAA’s Determination

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA’s bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI and service information referenced above. The FAA is issuing this NPRM after determining the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Proposed AD Requirements

This proposed AD would establish a life limit of 5 years for the affected propeller gearbox tooth belt.

Differences Between this Proposed AD and the MCAI or Service Information

The MCAI applies to Stemme AG Model ASP S15-1 airplanes, and this proposed AD would not because that model does not have an FAA type certificate.

The MCAI requires an inspection to determine whether the propeller gearbox tooth belts are “Synchroforce Carbon” or “Extreme.” This proposed AD would not require this inspection because instead, it would apply only to gliders with a “Synchroforce Carbon” propeller gearbox tooth belt installed.

The MCAI requires revising the existing aircraft maintenance program (AMP) to introduce the reduced life limit for the affected propeller gearbox tooth belt, as well as other life limits, as specified in the Temporary Revision to the aircraft maintenance manual airworthiness limitations section (ALS). After the AMP is revised, the MCAI does not require recording AD compliance on a continued basis each time a task in the revised AMP is performed. Because the AMP is not required for U.S. operators and the ALS specified in the MCAI includes additional tasks that do not address the unsafe condition, this proposed AD would establish a life limit for the affected propeller gearbox tooth belt by requiring that it be removed from service after 5 years. Operators would be required to record AD compliance each time an affected propeller gearbox tooth belt reaches its life limit and is replaced.

Stemme SB Doc. No. P062-980049, Revision 00, dated May 27, 2020, requires reporting information to Stemme AG, and this proposed AD would not.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 3 gliders of U.S. registry. The FAA estimates that it would take 4 work hours to replace the propeller gearbox tooth belt and require a part costing \$300. The average labor rate is \$85 per work hour. Based on these figures, the FAA estimates the cost to replace the propeller gearbox tooth belt on U.S. operators to be \$1,920 or \$640 per glider, every 5 years.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

Stemme AG: Docket No. FAA-2021-1010; Project Identifier MCAI-2020-00807-G.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Stemme AG TSA-M Model S6 and S6-RT gliders, all serial numbers, certificated in any category, with a propeller gearbox tooth belt marked “Synchroforce Carbon” installed.

(d) Subject

Joint Aircraft System Component (JASC) Code 6100, Propeller System.

(e) Unsafe Condition

This AD was prompted by mandatory continuing airworthiness information (MCAI) issued by the aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as a new version of the propeller gearbox tooth belt with a reduced life limit. The FAA is issuing this AD to prevent a propeller gearbox tooth belt remaining in service beyond its fatigue life. The unsafe condition, if not addressed, could result in failure of the propeller gearbox tooth belt and reduced control of the glider.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

Before the propeller gearbox tooth belt accumulates 5 years since installation on a glider or within 30 days after the effective date of this AD, whichever occurs later, and

thereafter at intervals not to exceed 5 years, remove the propeller gearbox tooth belt from service and install a propeller gearbox tooth belt with zero hours time-in-service.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (i)(1) of this AD or email: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(i) Related Information

(1) For more information about this AD, contact Jim Rutherford, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 901 Locust, Room 301, Kansas City, MO 64106; phone: (816) 329-4165; fax: (816) 329-4090; email: jim.rutherford@faa.gov.

(2) Refer to European Union Aviation Safety Agency (EASA) AD 2020-0140, dated June 23, 2020, for more information. You may examine the EASA AD in the AD docket at <https://www.regulations.gov> by searching for and locating it in Docket No. FAA-2021-1010.

Issued on November 15, 2021.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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